

01-001 DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
DIVISION OF ANIMAL AND PLANT HEALTH

Chapter 273: CRITERIA FOR LISTING INVASIVE TERRESTRIAL PLANTS

SUMMARY: This chapter establishes criteria to be used in evaluating non-native terrestrial invasive plants which are offered for sale or import in Maine that could have adverse economic and/or ecological impacts in Maine. This chapter also establishes the list of evaluated plants that meet the criteria and prescribes the restrictions on the distribution and sale of those plants.

I. **Definitions**

- A. **Biological potential** - The ability of a species to increase its numbers, either sexually and/or asexually, and occupy more space.

- ~~BB.~~ **Ecoregion** – An ecoregion is a geographic area where ecosystems are generally similar. Ecoregion maps are published by the US Environmental Protection Agency.

- C. **Invasive plant** - A non-native species that has spread into native or minimally managed plant communities (habitats) in Maine that causes economic or environmental harm by developing self-sustaining populations and becoming that become dominant and/or disruptive to native species.

- ~~C.~~ **Likely invasive plant** – A non-native species that is naturalized in Maine, is not yet widespread, but has been found to be invasive in other states or provinces with similar climates.

- D. **Minimally managed habitats** - Minimally managed habitats are habitats where management efforts and investments of time, money and labor are infrequent or nonexistent. These habitats may at one time have been intensively managed. Minimally managed habitats may include, but are not limited to forests, woodlots, rights-of-way, riverbanks, coastal plains, pastures, meadows and vacant lots.

- E. **Native Plant** - A species that has ~~developed~~evolved over hundreds or thousands of years in a particular ~~region or ecosystem.~~ Only ecoregion. Generally, only plants found in this country before European settlement are considered ~~to be~~ native to the United States.

- F. **Naturalized Plant** - A non-native plant that does not need human help to reproduce and maintain itself over time in an area where it is not native.

- G. **Non-native Plant** - A species that is not native or naturally occurring (based on its biology, phylogeny, distribution and current knowledge of the species) within Maine. A species may be native to North America, but non-native in Maine. Non-native is synonymous with non-indigenous, exotic or alien.

~~H. **Potentially invasive plant** - Non native species not currently known to be naturalized in Maine, but that can be expected to become invasive within minimally managed habitats within the state.~~

~~H. **Spatial gaps** - This term is used in reference to the ability of a species to disperse away from existing occurrences. The concept of crossing spatial gaps is used to describe those species that can disperse over discontinuities and become established elsewhere. This contrasts to other species that spread across a habitat only by continual, uninterrupted growth. It is a distance from the location of the original introduction of a plant which exceeds the average distance a propagule (seed or other viable plant part) from that plant would normally establish. The longer distance movement (over a spatial gap) and establishment is facilitated by wind, water, animals or some other reason. This type of growth contrasts with a plant that spreads contiguously and undispersed within a habitat.~~

~~J. **Species** - As utilized in this chapter, "species" includes all synonyms, subspecies, hybrids, varieties, forms and cultivars of that species unless proven otherwise by a process of scientific evaluation.~~

~~J. **Species of special concern** - A non-native plant species that has spread into native or minimally managed plant habitats in Maine that may cause economic or environmental harm. Species of special concern may be effectively contained through alternative regulatory measures instead of prohibiting sale or import.~~

~~K. **Terrestrial Plant** - As utilized in this chapter, "terrestrial plant" includes plants that grow in upland habitats but may also include plants that are able to grow as emergent aquatic plants. Terrestrial plants may grow in agricultural fields, rangelands, forests, urban landscapes, wildlands, and along waterways. Terrestrial plants include trees, shrubs, vines, grasses and herbaceous plants.~~

II. Criteria for Evaluating Terrestrial Plant Species

In order to include a plant on a list of invasive terrestrial plant species administered by the Maine Department of Agriculture, Conservation and Forestry the following criteria must be met:

~~A. All of the following criteria must be met for a terrestrial plant species to be considered either **invasive, likely invasive or potentially invasive**. The species must:~~

~~1. Be non-native to Maine, and~~

~~2. Have the potential for rapid growth, dissemination and establishment in minimally managed habitats, and~~

~~3. Have the biological potential for widespread dispersion and for dispersing over spatial gaps, and~~

~~D. Have the biological potential for existing in high numbers or large colonies in minimally managed habitats, and~~

~~E. Have the potential to displace native species in minimally managed habitats.~~

~~B. All of the following criteria must be met for a terrestrial plant species to be considered invasive. The species must:~~

- ~~1. Be widespread in a region or habitat type(s) in Maine.~~
- ~~2. Have many occurrences of numerous individuals or colonies that displace native species in minimally managed habitats in Maine.~~

~~C. All of the following criteria must be met for a terrestrial plant species to be considered likely invasive. The species must:~~

- ~~1. Be naturalized in Maine (persist without cultivation).~~
- ~~2. Have at least one occurrence in Maine that has high numbers of individuals forming dense stands in minimally managed habitat, or have demonstrated to be invasive in nearby states and provinces or areas with similar climates, but its status in Maine is unknown or unclear. Unknown status may result from lack of field experience with the species or from difficulty in species determination or taxonomy.~~

D. All of the following criteria must be met for a terrestrial plant species to be considered **potentially invasive**. The species must:

1. Have no known naturalized occurrences in Maine.
2. Have demonstrated to be invasive in nearby states and provinces or areas with similar climates.
3. Be anticipated to naturalize in Maine.

III. List of Invasive Terrestrial Plant Species

Plant species that have been evaluated and meet the criteria for one of the categories listed in section II.

Scientific name	Common name	Evaluation Criteria
<i>Acer platanoides</i>	Norway Maple	Invasive
<i>Alliaria petiolata</i>	Garlic Mustard	Invasive
<i>Berberis thunbergii</i>	Japanese Barberry	Invasive
<i>Celastrus orbiculatus</i>	Asiatic Bittersweet	Invasive
<i>Elaeagnus umbellata</i>	Autumn Olive	Invasive
<i>Euonymus alatus</i>	Winged Euonymus	Invasive
<i>Fallopia japonica</i>	Japanese Knotweed	Invasive
<i>Frangula alnus</i>	Glossy buckthorn	Invasive
<i>Hesperis matronalis</i>	Dame's Rocket	Invasive
<i>Iris pseudacorus</i>	Yellow Iris	Invasive
<i>Lonicera morrowii</i>	Morrow's Honeysuckle	Invasive
<i>Lonicera tatarica</i>	Tartarian Honeysuckle	Invasive
<i>Lythrum salicaria</i>	Purple Loosestrife	Invasive
<i>Robinia pseudoacacia</i>	Black Locust	Invasive
<i>Rosa multiflora</i>	Multiflora Rose	Invasive
<i>Acer ginnala</i>	Amur Maple	Likely Invasive
<i>Aegopodium podagraria</i>	Bishop's Weed	Likely Invasive
<i>Ailanthus altissima</i>	Tree of Heaven	Likely Invasive
<i>Amorpha fruticosa</i>	False Indigo Bush	Likely Invasive
<i>Artemisia vulgaris</i>	Common Mugwort	Likely Invasive
<i>Berberis vulgaris</i>	Common Barberry	Likely Invasive
<i>Euphorbia cyparissias</i>	Cypress Spurge	Likely Invasive
<i>Ligustrum vulgare</i>	Common Privet	Likely Invasive
<i>Lonicera japonica</i>	Japanese Honeysuckle	Likely Invasive
<i>Lonicera maaackii</i>	Amur or Bush Honeysuckle	Likely Invasive
<i>Populus alba</i>	White Cottonwood	Likely Invasive
<i>Impatiens glandulifera</i>	Ornamental Jewelweed	Likely Invasive
<i>Ampelopsis glandulosa</i>	Porcelain Berry	Potentially Invasive
<i>Fallopia baldschuanica</i>	Chinese Bindweed	Potentially Invasive

<i>Microstegium vimineum</i>	Japanese Stilt Grass	Potentially Invasive
<i>Paulownia tomentosa</i>	Paulownia	Potentially Invasive
<i>Persicaria perfoliata</i>	Mile-a Minute Weed	Potentially Invasive
<i>Phellodendron amurense</i>	Amur Cork Tree	Potentially Invasive

IVIII. Prohibitions and restrictions

No person shall import, export, buy, sell, or intentionally propagate for sale or distribution any living and viable portion of any plant species, which includes all of their cultivars, varieties and hybrids, listed in Section ~~III~~ as ~~invasive, likely invasive or potentially invasive.~~V.

IV. Transition

~~Plants~~The effective date for prohibition or restriction of the plants listed in Section ~~HHV~~ that are already growing in Maine or in the channels of trade in Maine at the time this rule is adopted ~~will be exempt from Section IV until December 31, 2017~~are indicated in the Section V list of regulated invasive terrestrial plant species.

V. List of Regulated Invasive Terrestrial Plant Species

Evaluated plant species that meet the criteria for one of the categories listed in section II.

<u>Scientific name</u>	<u>Common name</u>	<u>Effective Date</u>
<i>Acer platanoides</i>	Norway maple	1/1/2018
<i>Alliaria petiolata</i>	Garlic mustard	1/1/2018
<i>Berberis thunbergii</i>	Japanese barberry	1/1/2018
<i>Celastrus orbiculatus</i>	Asiatic bittersweet	1/1/2018
<i>Elaeagnus umbellata</i>	Autumn olive	1/1/2018
<i>Euonymus alatus</i>	Winged euonymus, burning bush	1/1/2018
<i>Fallopia japonica</i>	Japanese knotweed	1/1/2018
<i>Frangula alnus</i>	Glossy buckthorn	1/1/2018
<i>Hesperius matronalis</i>	Dame's rocket	1/1/2018
<i>Iris pseudacorus</i>	Yellow iris	1/1/2018
<i>Lonicera morrowii</i>	Morrow's honeysuckle	1/1/2018
<i>Lonicera tatarica</i>	Tartarian honeysuckle	1/1/2018
<i>Lythrum salicaria</i>	Purple loosestrife	1/1/2018
<i>Robinia pseudoacacia</i>	Black locust	1/1/2018
<i>Rosa multiflora</i>	Multiflora rose	1/1/2018
<i>Acer ginnala</i>	Amur maple	1/1/2018
<i>Aegopodium podagraria</i>	Bishop's weed, goutweed	1/1/2018
<i>Ailanthus altissima</i>	Tree of heaven	1/1/2018
<i>Amorpha fruticosa</i>	False indigo bush	1/1/2018
<i>Artemisia vulgaris</i>	Common mugwort	1/1/2018

<i>Berberis vulgaris</i>	Common barberry	1/1/2018
<i>Euphorbia cyparissias</i>	Cypress spurge	1/1/2018
<i>Ligustrum vulgare</i>	Common privet	1/1/2018
<i>Lonicera japonica</i>	Japanese honeysuckle	1/1/2018
<i>Lonicera maackii</i>	Amur or bush honeysuckle	1/1/2018
<i>Populus alba</i>	White cottonwood	1/1/2018
<i>Impatiens glandulifera</i>	Ornamental jewelweed	1/1/2018
<i>Ampelopsis glandulosa</i>	Porcelain berry	1/1/2018
<i>Fallopia baldschuanica</i>	Chinese bindweed, silver lace vine	1/1/2018
<i>Microstegium vimineum</i>	Stilt grass	1/1/2018
<i>Paulownia tomentosa</i>	Paulownia, princess tree	1/1/2018
<i>Persicaria perfoliata</i>	Mile a minute weed	1/1/2018
<i>Phellodendron amurense</i>	Amur cork tree	1/1/2018
<i>Alnus glutinosa</i>	European alder	1/1/2024
<i>Angelica sylvestris</i>	Woodland angelica	1/1/2024
<i>Anthriscus sylvestris</i>	Wild chervil, raven's wing	1/1/2024
<i>Aralia elata</i>	Japanese angelica tree	1/1/2024
<i>Butomus umbellatus</i>	Flowering rush	1/1/2024
<i>Elaeagnus angustifolia</i>	Russian olive	1/1/2024
<i>Euonymus fortunei</i>	Wintercreeper, climbing spindle tree	1/1/2024
<i>Festuca filiformis</i>	Fine-leaved sheep fescue	1/1/2024
<i>Ficaria verna</i>	Lesser celandine	1/1/2024
<i>Glaucium flavum</i>	Yellow hornpoppy	1/1/2024
<i>Glechoma hederacea</i>	Ground ivy, creeping charlie	1/1/2024
<i>Glyceria maxima</i>	Great mannagrass, reed mannagrass	1/1/2024
<i>Hippophae rhamnoides</i>	Sea buckthorn	1/1/2024
<i>Ligustrum obtusifolium</i>	Border privet	1/1/2024
<i>Lonicera xylosteum</i>	Dwarf honeysuckle	1/1/2024
<i>Lythrum virgatum</i>	European wand loosestrife	1/1/2024
<i>Miscanthus sacchariflorus</i>	Amur silvergrass	1/1/2024
<i>Petasites japonicus</i>	Fuki, butterbur, giant butterbur	1/1/2024
<i>Phalaris arundinacea</i>	Reed canary grass, variegated ribbon grass	1/1/2024
<i>Photinia villosa</i>	Photinia, christmas berry	1/1/2024
<i>Phragmites australis</i>	Common reed	1/1/2024
<i>Phyllostachys aurea</i>	Golden bamboo	1/1/2024
<i>Phyllostachys aureosulcata</i>	Yellow groove bamboo	1/1/2024
<i>Pyrus calleryana</i>	Callery ("Bradford") pear	1/1/2024
<i>Ranunculus repens</i>	Creeping buttercup	1/1/2024
<i>Rubus phoenicolasius</i>	Wineberry	1/1/2024
<i>Silphium perfoliatum</i>	Cup plant	1/1/2024
<i>Sorbus aucuparia</i>	European mountain-ash	1/1/2024
<i>Tussilago farfara</i>	Coltsfoot	1/1/2024
<i>Valeriana officinalis</i>	Common valerian	1/1/2024

VI. Variances

- A A variance may be granted by the State Horticulturist to allow for importation and field experimentation of invasive plants listed in Section [HHV](#) for scientific, educational, or other purposes under conditions prescribed by the State Horticulturist. Any variance(s) shall be in the form of a permit issued by the State Horticulturist.
- B Preserved specimens in the form of herbaria or other preservation means are exempt from this rule.
- C Varieties, cultivars, hybrids and/or subspecies that have been shown not to be invasive through ~~peer-reviewed~~ scientific research and analysis may be considered exempt from this rule after review by a committee established by the Department.

1. Data submitted must include sources with no financial interest in the species, such as universities, agricultural experiment stations, cooperative extension, USDA or botanical gardens; and
2. Regulatory status in nearby states shall also be considered.

VII. Periodic Review Species Watch List

The Evaluated plant list species that do not currently meet all the criteria contained in section II but may meet those criteria within the next five years. These species are not subject to the prohibitions in Section III ~~will~~.

<u>Scientific Name</u>	<u>Common Name</u>
<u><i>Actinidia arguta</i></u>	<u>Hardy kiwi</u>
<u><i>Akebia quinata</i></u>	<u>Chocolate vine; five-leaf akebia</u>
<u><i>Arum italicum</i></u>	<u>Italian arum</u>
<u><i>Broussonetia papyrifera</i></u>	<u>Paper mulberry</u>
<u><i>Buddleja davidii</i></u>	<u>Butterfly bush</u>
<u><i>Clematis terniflora</i></u>	<u>Yam-leaved virgin's bower, sweet autumn</u>
<u><i>Dioscorea oppositifolia</i></u>	<u>Indian yam</u>
<u><i>Dioscorea polystachya</i></u>	<u>Chinese yam</u>
<u><i>Eragrostis curvula</i></u>	<u>Weeping lovegrass</u>
<u><i>Filipendula ulmaria</i></u>	<u>Queen of the meadow</u>
<u><i>Lespedeza bicolor</i></u>	<u>Bicolor lespedeza, two-colored bush-clover</u>
<u><i>Ligustrum ovalifolium</i></u>	<u>California privet</u>
<u><i>Lonicera caerulea</i></u>	<u>Honeyberry, haskap</u>
<u><i>Lychnis flos-cuculi</i> or <i>Silene flos-cuculi</i></u>	<u>Ragged robin</u>
<u><i>Morus alba</i></u>	<u>White mulberry</u>
<u><i>Quercus acutissima</i></u>	<u>Sawtooth oak</u>
<u><i>Rosa rugosa</i></u>	<u>Rugosa rose, beach rose</u>
<u><i>Saccharum ravennae</i> or <i>Triplidium ravennae</i></u>	<u>Ravenna grass, hardy pampas grass</u>
<u><i>Salvia glutinosa</i></u>	<u>Sticky sage</u>
<u><i>Silybum marianum</i></u>	<u>Milk thistle</u>
<u><i>Spiraea japonica</i></u>	<u>Japanese spiraea</u>
<u><i>Symplocos paniculata</i></u>	<u>Sapphire-berry</u>
<u><i>Syringa reticulata</i></u>	<u>Japanese tree lilac</u>
<u><i>Toona sinensis</i></u>	<u>Chinese cedar</u>
<u><i>Ulmus pumila</i></u>	<u>Siberian elm</u>
<u><i>Viburnum dilatatum</i></u>	<u>Linden arrowwood</u>
<u><i>Viburnum sieboldii</i></u>	<u>Siebold viburnum</u>
<u><i>Wisteria floribunda</i></u>	<u>Japanese wisteria</u>
<u><i>Wisteria sinensis</i></u>	<u>Chinese wisteria</u>

VIII. Species of Special Concern.

<u>Scientific Name</u>	<u>Common Name</u>
<u><i>Rosa rugosa</i></u>	<u>Rugosa rose, beach rose</u>

(Below we offer two options for regulating species of special concern. Please provide comments regarding which option is preferable.)

IX, Option 1 Species of Special Concern – Conditions governing sale or display of species of special concern.

- A. A species of special concern that is sold or offered for sale in Maine shall have attached in a conspicuous place on the container used to hold the species of special concern, and where no container is used on the plant itself, a label with the words Invasive Species-Harmful to the Environment in at least 14-point bold type. Where it is impracticable to display a label, written notice shall be provided upon sale to the purchaser. The label or written notice shall be of a design approved by the Department of Agriculture, Conservation and Forestry and shall offer alternative non-invasive species and provide instructions for the care or tending of the invasive species to prevent their spread in the State.
- B. No person selling or offering for sale a species of special concern shall conceal, detach, alter, deface, or destroy any label, sign, or notice required under this section.

IX, Option 2 **Species of Special Concern** – Conditions governing sale of species of special concern.

- A. A person may not sell or offer for sale species of special concern at a retail outlet unless the retail outlet posts a sign or signs identifying the plants as species of special concern. The sign or signs must be conspicuous and unobstructed and appear at no less than six-foot intervals around the listed plants. The sign specifications include:
 - 1. The sign must be 8.5inches tall and 11 inches wide;
 - 2. The sign must be made of rigid, weather resistant material and be maintained to last during the entire time that species of special concern are offered for sale;
 - 3. The sign must have lettering in at least 40-point type in the Arial font or similar sans serif font;
 - 4. The sign must be light colored (white, beige, yellow or pink) with dark, bold letters (black, blue or green); and
 - 5. The sign must include the following wording, “Invasive Plant – May be Harmful to the Environment”, “Ask About Alternative Plants”, and “Follow Species Specific Instructions Provided by the Vendor”.
- B. The plant vendor must provide species specific guidance at the time of sale to notify the purchaser about the invasive potential of the species and what habitat types to avoid when installing the plant.

X. **Periodic Review**

The plant lists in Section V, VII and VIII may be reviewed and amended on a five-year basis unless a person petitions the Department with significant scientific research and analysis that, in the Department’s determination, warrants review for possible amendment to the list at an earlier date.

STATUTORY AUTHORITY: 7 M.R.S.A. Chapter 405-A Section 2211

EFFECTIVE DATE:

December 25, 2011 – filing 2011-469

CORRECTIONS:

February, 2014 – agency names, formatting

AMENDED:

January 14, 2017 – filing 2017-003